

Remarks

Applicant respectfully requests reconsideration of this application as amended. Claims 1, 8, 11, and 13 have been amended. Claims 3, 9, and 16 have been cancelled. No claims have been added. Therefore, claims 1, 2, 4-8, and 10-15 are presented for examination.

35 U.S.C. §102(e) Rejection

Claim 1 stands rejected under 35 U.S.C. §102(e) as being anticipated by Abe et al. (U.S. Patent No. 6,674,623). Applicant submits that the present claims are patentable over Abe.

Abe discloses a microcomputer equipped with a built-in temperature sensor. The microcomputer also includes a voltage break circuit and a power source voltage generation circuit. (Abe at co. 5, lns 14-17.) When the temperature of a semiconductor chip mounted on the microcomputer rises over a predetermined value, the voltage break circuit operates in a way to stop the supply of the power source voltage so that the operation of the microcomputer halts. (Col. 30, lns. 15-26.)

Claim 1, as amended, of the present application recites:

A method, comprising:
detecting that a processor is overheated;
asserting a thermal trip signal from the processor;
causing the processor to enter a halt state;
automatically removing power from the processor; and
throttling the processor by periodically asserting a stop
clock signal following a computer system reboot.

Applicant submits that Abe does not disclose or suggest throttling the processor by periodically asserting a stop clock signal following a computer system reboot. Abe discloses

halting operation of a processor once it has reached a predetermined threshold temperature. But, there is no teaching or suggestion in Abe of throttling the processor by periodically asserting a stop clock signal following reboot from the removal of power from the processor.

The Examiner admits as much when stating that Hollowell does not “disclose expressly about throttling the processor.” (See Office Action mailed 9/21/04 at page 5, point 14.) However, the Examiner does state “a routineer in the art would know that it is obvious to do so upon rebooting the system.” (Id.) Applicants submit that it is not obvious to throttle the processor by periodically asserting a stop clock signal after reboot. As Abe does not disclose or suggest all of the features of claim 1, claim 1 is patentable over Abe.

35 U.S.C. §103(a) Rejection

Claims 8 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Abe et al. (U.S. Patent No. 6,674,623). Applicant submits that the present claims are patentable over Abe.

Claims 8 and 11, as amended, each recite throttling the processor by periodically asserting a stop clock signal following a system reboot or reset. As discussed above, Abe does not disclose or suggest such a feature. Therefore, for the reasons discussed above with respect to claim 1, claims 8 and 11 are also patentable over Abe.

Claims 2, 10, and 13-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Abe et al. (U.S. Patent No. 6,674,623) in view of Hollowell et al. (U.S. Patent No. 5,590,061). Applicant submits that the present claims are patentable over Abe even in view of Hollowell.

Hollowell discloses a method and apparatus for managing thermal characteristics of a computer system, and sensing the internal system temperature. More specifically, Hollowell uses operating system initiated interrupts executed by a processor to poll a microprocessor to determine a temperature sensor measurement. (See e.g., Hollowell at Fig. 1.)

Hollowell does not disclose or suggest throttling a processor by periodically asserting a stop clock signal after a system reboot. In the Office Action, the Examiner states that Hollowell does not expressly disclose this feature. (Office Action dated 9/21/04 at page 5, point 14.) Instead, the Examiner asserts it would be obvious to include such a feature. (Id.) Applicant submits that throttling a processor by periodically asserting a stop clock signal is not obvious. As discussed above, claims 1, 8, and 11 are patentable over Abe, because Abe does not disclose or suggest throttling a processor after a system reboots. Therefore, a combination of Abe and Hollowell would not yield all of the limitations of the independent claims. As such, claims 2, 10, and 13-14 are patentable over Abe in view of Hollowell.

Claims 4-7 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Abe et al. (U.S. Patent No. 6,674,623), Hollowell et al. (U.S. Patent No. 5,590,061) and further in view of Mittal et al. (U.S. Patent No. 5,719,800). Applicants submit that the present claims are patentable over Abe and Hollowell even in view of Mittal.

Mittal discloses an apparatus to reduce the power consumption in an integrated circuit by throttling the performance of particular functional units within the integrated circuit. (Mittal at Abstract.) Mittal does not disclose or suggest throttling a processor by periodically asserting a stop clock signal after a system reboot. As discussed above, neither Abe nor Hollowell disclose or suggest such a feature. Therefore, claims 4-7 and 15 are patentable over Abe and Hollowell, in view of Mittal.

Applicant respectfully submits that the rejections have been overcome and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

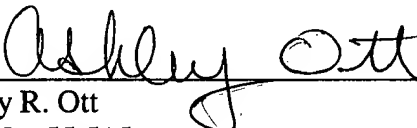
Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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